



IFW16

RAW SEQUENCE LISTING

DATE: 08/27/2004

PATENT APPLICATION: US/10/010,731A

TIME: 10:27:28

Input Set : A:\11899.0193.DVUS02.ST25.txt

Output Set: N:\CRF4\08272004\J010731A.raw



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3 <110> APPLICANT: Liang, Jihong
4     Shah, Dilip Maganlal
5     Wu, Yonnie S.
6     Rosenberger, Cindy A.
7     Hakimi, Salim
9 <120> TITLE OF INVENTION: Antifungal Polypeptide and Methods for Controlling Plant
10    Pathogenic Fungi
12 <130> FILE REFERENCE: 11899.0193.DVUS02
14 <140> CURRENT APPLICATION NUMBER: 10/010,731A
15 <141> CURRENT FILING DATE: 2001-11-13
16 <150> PRIOR APPLICATION NUMBER: 09/003,198
17 <151> PRIOR FILING DATE: 2000-06-07
20 <160> NUMBER OF SEQ ID NOS: 19
22 <170> SOFTWARE: PatentIn version 3.2
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 43
26 <212> TYPE: PRT
27 <213> ORGANISM: Alfalfa
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32 <222> LOCATION: (40)..(41)
33 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
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37 Arg Thr Cys Glu Asn Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser
38 1           5           10           15
41 Gly Cys Asp Thr His Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg
42           20           25           30
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46           35           40
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50 <211> LENGTH: 45
51 <212> TYPE: PRT
52 <213> ORGANISM: Alfalfa
54 <400> SEQUENCE: 2
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57 1           5           10           15
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61           20           25           30
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65           35           40           45
68 <210> SEQ ID NO: 3
69 <211> LENGTH: 33
70 <212> TYPE: DNA

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71 <213> ORGANISM: Artificial sequence
 73 <220> FEATURE:
 74 <223> OTHER INFORMATION: Oligonucleotide
 77 <220> FEATURE:
 78 <221> NAME/KEY: misc_feature
 79 <222> LOCATION: (16)..(16)
 80 <223> OTHER INFORMATION: N = inosine
 82 <220> FEATURE:
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 84 <222> LOCATION: (19)..(19)
 85 <223> OTHER INFORMATION: D = A or G or T
 87 <220> FEATURE:
 88 <221> NAME/KEY: misc_feature
 89 <222> LOCATION: (22)..(22)
 90 <223> OTHER INFORMATION: N = inosine
 92 <220> FEATURE:
 93 <221> NAME/KEY: misc_feature
 94 <222> LOCATION: (24)..(24)
 95 <223> OTHER INFORMATION: K = G or T
 97 <220> FEATURE:
 98 <221> NAME/KEY: misc_feature
 99 <222> LOCATION: (25)..(25)
 100 <223> OTHER INFORMATION: D = A or G or T
 102 <220> FEATURE:
 103 <221> NAME/KEY: misc_feature
 104 <222> LOCATION: (28)..(28)
 105 <223> OTHER INFORMATION: D = A or G or T
 107 <220> FEATURE:
 108 <221> NAME/KEY: misc_feature
 109 <222> LOCATION: (31)..(31)
 110 <223> OTHER INFORMATION: D = A or G or T
 112 <400> SEQUENCE: 3

W--> 113 gggaattcgg atccanacac anckdaadtc dtc

33

116 <210> SEQ ID NO: 4
 117 <211> LENGTH: 30
 118 <212> TYPE: DNA
 119 <213> ORGANISM: Artificial sequence
 121 <220> FEATURE:
 122 <223> OTHER INFORMATION: Oligonucleotide
 125 <220> FEATURE:
 126 <221> NAME/KEY: misc_feature
 127 <222> LOCATION: (18)..(29)
 128 <223> OTHER INFORMATION: N = inosine
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W--> 131 gggaattcgg atccgggngg ggnngggngg

30

134 <210> SEQ ID NO: 5
 135 <211> LENGTH: 200
 136 <212> TYPE: DNA
 137 <213> ORGANISM: Alfalfa

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141 <221> NAME/KEY: misc_feature
142 <222> LOCATION: (17)..(17)
143 <223> OTHER INFORMATION: N = A or C or G or T
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148 aattgtggtg acagaagcca gaacatgtga gaatttgga gataaatata ggggaccatg      120
150 ctttagtggt tgtgacactc actgcacaac caaagagaac gcagttagtga gaaggtgtag      180
152 ggacgacttc cgctgctgct                                200
155 <210> SEQ ID NO: 6
156 <211> LENGTH: 293
157 <212> TYPE: DNA
158 <213> ORGANISM: Alfalfa
161 <220> FEATURE:
162 <221> NAME/KEY: misc_feature
163 <222> LOCATION: (17)..(265)
164 <223> OTHER INFORMATION: N = A or C or G or T
166 <400> SEQUENCE: 6
W--> 167 gggggggggg ggggggntgt caaacacaca cataacacat aagtgaccgt gagtcattaa      60
169 atttatatat attcatcaat ctaatcaaac tatggagaag aaatcactag ctggcttatg      120
171 cttcctcttc ctggttctct ttgttgaaca agaaattatg gtgaccgagg cagctacttg      180
173 tgagaatttg gctaacacat acagggggacc atgcttcggt ggttgtgact ttcactgcaa      240
175 aaccaaagaa cacttactta gcggnagggt cagggacgac ttccgctgct gct          293
178 <210> SEQ ID NO: 7
179 <211> LENGTH: 33
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Oligonucleotide
187 <220> FEATURE:
188 <221> NAME/KEY: misc_feature
189 <222> LOCATION: (17)..(17)
190 <223> OTHER INFORMATION: D = A or G or T
192 <220> FEATURE:
193 <221> NAME/KEY: misc_feature
194 <222> LOCATION: (19)..(20)
195 <223> OTHER INFORMATION: B = C or G or T
197 <220> FEATURE:
198 <221> NAME/KEY: misc_feature
199 <222> LOCATION: (22)..(25)
200 <223> OTHER INFORMATION: N = inosine
202 <220> FEATURE:
203 <221> NAME/KEY: misc_feature
204 <222> LOCATION: (28)..(28)
205 <223> OTHER INFORMATION: B = C or G or T
207 <220> FEATURE:
208 <221> NAME/KEY: misc_feature
209 <222> LOCATION: (31)..(31)
210 <223> OTHER INFORMATION: D = A or G or T

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212 <400> SEQUENCE: 7
W--> 213 ggggaattcgg atccgaabb tngcngahaa ,dta 33
216 <210> SEQ ID NO: 8
217 <211> LENGTH: 32
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: Oligonucleotide
224 <400> SEQUENCE: 8
225 ggggaattcgg atcctttttt tttttttttt tt 32
228 <210> SEQ ID NO: 9
229 <211> LENGTH: 327
230 <212> TYPE: DNA
231 <213> ORGANISM: Alfalfa
234 <220> FEATURE:
235 <221> NAME/KEY: misc_feature
236 <222> LOCATION: (244)..(305)
237 <223> OTHER INFORMATION: N = A or C or G or T
239 <400> SEQUENCE: 9
240 gagaatttgg cggataagta taggggacca tgcttttagtg gttgtgacac tcaactgcaca 60
242 accaaagaga acgcagttag tggaaggtgt agggatgact ttcgttggtta gtgtactaaa 120
244 agatgtttaa tggatctcct ccaacatcaa gatgtgcatg gaatagtctt tataataaaa 180
246 ctaaataaat aaaatgcacg cagtatagct acaacttcat ctatatatat gtactcaata 240
W--> 248 tcgngcataa cgtattagtt atgcacttct atcatatgga ataaacatca ataagtaatt 300
250 tcgtntccaa aaaaaaaaaa aaaaaaa 327
253 <210> SEQ ID NO: 10
254 <211> LENGTH: 507
255 <212> TYPE: DNA
256 <213> ORGANISM: Alfalfa
259 <220> FEATURE:
260 <221> NAME/KEY: misc_feature
261 <222> LOCATION: (17)..(485)
262 <223> OTHER INFORMATION: N = A or C or G or T
264 <400> SEQUENCE: 10
W--> 265 gggggggggg ggggggntgt caaacacaca cataacacat aagtgaccgt gagtcattaa 60
267 atttatatat attcatcaat ctaatcaaac tatggagaag aaatcactag ctggcttatg 120
269 cttcctcttc ttggttctct ttggtgcaca agaaattgtg gtgacagaag ccagaacatg 180
271 tgagaatttg gcagataaat ataggggacc atgctttagt ggtgtgaca ctcactgcac 240
273 aaccaaagag aacgcagtta gtggaaggtg tagggacgac ttccgctgct ggtgtactaa 300
275 aagatgttaa atggatctcc tccaacatca agatgtgcat ggaatagtct ttataataaa 360
277 actaaataaa taaatgcac gcagtatagc tacaacttca tctatatata tgactcaata 420
279 tcgngcataa cgtattagtt atgcacttct atcatatgga ataaacatca ataagtaatt 480
281 tcgtntccaa aaaaaaaaaa aaaaaaa 507
284 <210> SEQ ID NO: 11
285 <211> LENGTH: 62
286 <212> TYPE: DNA
287 <213> ORGANISM: Artificial sequence
289 <220> FEATURE:
290 <223> OTHER INFORMATION: Oligonucleotide

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292 <400> SEQUENCE: 11
293 ggggatccca atctaataca actatggaga agaaatcact agctggctta tgcttcctct      60
295 tc                                                                    62
298 <210> SEQ ID NO: 12
299 <211> LENGTH: 47
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Oligonucleotide
306 <400> SEQUENCE: 12
307 ggggatcctt aacatctttt agtacaccag cagcgggaagt cgctccct      47
310 <210> SEQ ID NO: 13
311 <211> LENGTH: 250
312 <212> TYPE: DNA
313 <213> ORGANISM: Alfalfa
315 <400> SEQUENCE: 13
316 ggggatccca atctaataca actatggaga agaaatcact agctggcttatgcttcctct      60
318 tcttggttct ctttggttga caagaaattg tggtgacaga agccagaaca tgtgagaatt      120
320 tggcagataa atatagggga ccatgcttta gtggttgatga cactcactgc acaaccaaag      180
322 agaacgcagt tagtggaagg ttaggggacg acttccgctg ctggtgtact aaaagatgtt      240
324 aaggatcccc                                                                250
327 <210> SEQ ID NO: 14
328 <211> LENGTH: 40
329 <212> TYPE: PRT
330 <213> ORGANISM: Alfalfa
332 <400> SEQUENCE: 14
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335 1          5          10          15
338 Gly Cys Asp Phe His Cys Lys Thr Lys Glu His Leu Leu Ser Gly Arg
339          20          25          30
342 Cys Arg Asp Asp Phe Arg Cys Cys
343          35          40
346 <210> SEQ ID NO: 15
347 <211> LENGTH: 72
348 <212> TYPE: PRT
349 <213> ORGANISM: Alfalfa
351 <400> SEQUENCE: 15
353 Met Glu Lys Lys Ser Leu Ala Gly Leu Cys Phe Leu Phe Leu Val Leu
354 1          5          10          15
357 Phe Val Ala Gln Glu Ile Val Val Thr Glu Ala Arg Thr Cys Glu Asn
358          20          25          30
361 Leu Ala Asp Lys Tyr Arg Gly Pro Cys Phe Ser Gly Cys Asp Thr His
362          35          40          45
365 Cys Thr Thr Lys Glu Asn Ala Val Ser Gly Arg Cys Arg Asp Asp Phe
366          50          55          60
369 Arg Cys Trp Cys Thr Lys Arg Cys
370 65          70
373 <210> SEQ ID NO: 16
374 <211> LENGTH: 67

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RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 40, 41 ✓
Seq#:3; N Pos. 16, 22 ✓
Seq#:4; N Pos. ~~18, 19, 23, 24, 28, 29~~ ✓
Seq#:5; N Pos. 17 ✓
Seq#:6; N Pos. 47, 265 ✓
Seq#:7; N Pos. 22, 25 ✓
Seq#:9; N Pos. 244, 305 ✓
Seq#:10; N Pos. ~~17, 424, 485~~ ✓

VERIFICATION SUMMARY

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Input Set : A:\11899.0193.DVUS02.ST25.txt

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L:45 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:32
L:113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:146 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6
L:213 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:248 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:240
M:341 Repeated in SeqNo=9
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
M:341 Repeated in SeqNo=10